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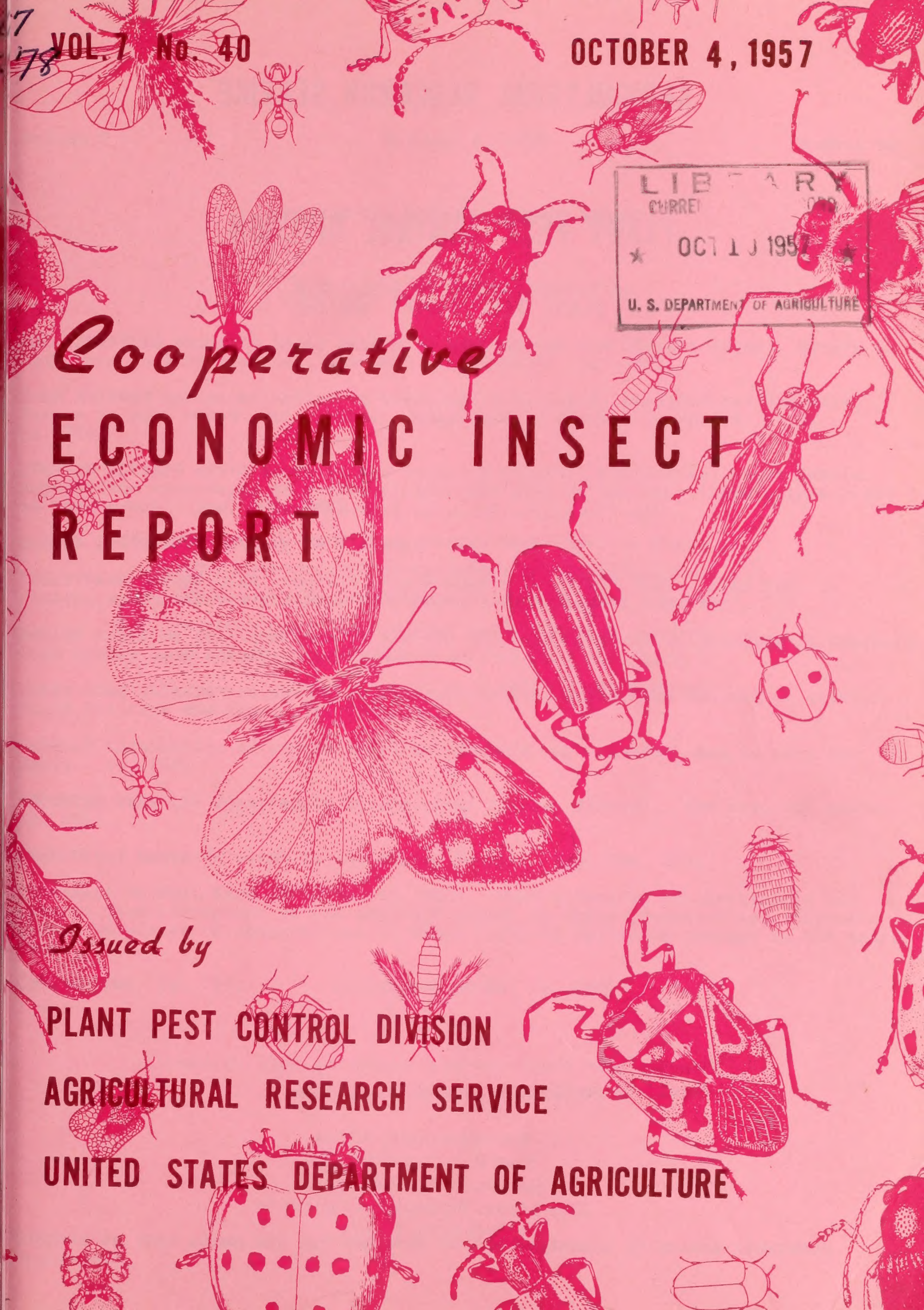

Cooperative
ECONOMIC INSECT REPORT

Issued by

PLANT PEST CONTROL DIVISION

AGRICULTURAL RESEARCH SERVICE

UNITED STATES DEPARTMENT OF AGRICULTURE

AGRICULTURAL RESEARCH SERVICE

PLANT PEST CONTROL DIVISION

PLANT PEST SURVEY SECTION

The Cooperative Economic Insect Report is issued weekly as a service to American Agriculture. Its contents are compiled from information supplied by cooperating State, Federal, and industrial entomologists and other agricultural workers. In releasing this material the Division serves as a clearing house and does not assume responsibility for accuracy of the material.

Reports and inquiries pertaining to this release should be mailed to:

Plant Pest Survey Section
Plant Pest Control Division
Agricultural Research Service
United States Department of Agriculture
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Volume 7 October 4, 1957 Number 40

COOPERATIVE ECONOMIC INSECT REPORT

Highlights of Insect Conditions

FALL ARMYWORM damaging small grains in some Kansas and Georgia areas. Severe on late corn in southern Ohio, Missouri and Alabama. (p. 789).

CORN EARWORM continues active in soybeans in Virginia, Maryland and Delaware. Severe in late sweet corn in Ohio. Damaginggrain sorghum in several areas. (p. 790).

SPOTTED ALFALFA APHID found in new areas of Indiana, California, South Dakota. Populations increasing in southwest Nebraska but, in general, infestations light in most areas. (pp. 791, 797).

MEADOW SPITTLEBUG outlook in Illinois. (p. 792).

VELVETBEAN CATERPILLAR reported from Delaware for first time. This pest is causing unusually heavy damage from Georgia to Delaware. (p. 791).

APHIDS heavy on fall tomatoes in Alabama and very numerous on potatoes in southern Utah during late season. (p. 794).

SCREW-WORM infestation severe in Beaufort County, North Carolina and in several South Carolina counties. (p. 796).

CADELLE infestation in stored wheat in Nebraska more general than in past two years. (p. 796).

IMPORTED FIRE ANT reported in Hillsborough County, Florida. New area for State. (p. 797).

INSECTSnot known to occur in the United States. (pp. 799, 800).

Statement on SOIL BANK PROGRAM. (p. 801). Your attention is directed to the program from standpoint of its possible effect on insect populations. Emphasis should be placed on observations of these lands to determine changes in the insect fauna.

CORRECTIONS (p. 797). ADDITIONAL NOTES (p. 797).

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Reports in this issue are for the week ending September 27 unless otherwise designated.

WEATHER BUREAU 30-DAY OUTLOOK

OCTOBER 1957

The Weather Bureau's 30-day outlook for October calls for temperatures to average above seasonal normals over the western half of the nation and also in the western Great Lakes region and upper Mississippi Valley. Below normal temperatures are expected to prevail in the Middle and South Atlantic States and along the Gulf Coast. In other areas about normal October temperatures are predicted. Precipitation is expected to be subnormal over much of the country lying between the Mississippi and the Rockies, but above normal amounts are indicated east of the Appalachians and along central and southern portions of the West Coast. In unspecified areas, about normal precipitation is anticipated.

Weather forecast given here is based on the official 30-day "Resume and Outlook," published twice a month by the Weather Bureau. You can subscribe through Superintendent of Documents, Washington 25, D. C. Price $4.80 a year, $2.40 a half year.

WEATHER OF THE WEEK ENDING SEPTEMBER 30

Fair, sunny weather in most of the country was very favorable for harvesting, seeding, and other agricultural activities. Temperatures were unusually cool in the East, averaging 10° below normal in several sections; but they were unseasonably warm in the Far West, particularly in the upper Rocky Mountain region where weekly averages were as much as 10° above normal. Heavy rainfall was limited to northern California and the Gulf and South Atlantic States. As a cold air mass overspread the entire area east of the Rockies the latter part of the week, freezing occurred over northern areas and temperatures in the South dropped to their lowest levels of the month. Freeze damage generally was minor since most crops were mature. Damage was mostly to corn in extreme north-central areas and cranberries in the East. Temperatures fell below 20° in the northeastern cranberry bogs and some heavy losses were reported from Rhode Island and New Jersey, due to insufficient water for protective flooding as a result of the recent drought. Some small losses occurred in Massachusetts for the same reason Rochester, N. Y., reported 31.1° on the 27th, the lowest temperature there for so early in the autumn.

Heavy rains began in southeastern Texas on the 25th and spread slowly eastward and northeastward reaching Virginia and the southern Appalachian region by the end of the period. Totals ranged from 2 to over 4 inches in most of the Gulf coastal area, except that amounts ranged from 1 to 1-1/2 inches in Florida. Wilmington, N. C., reported over 9 inches for the greatest amount. These rains delayed harvesting and caused some crop losses.

Rains were unusually heavy in northern California the last few days of the period. Several stations reported the heaviest early-season rains on record. San Francisco measured 1.15 inches on the 28th, the greatest one-day fall there for September since 1918, and 4.85 inches at Mt. Shasta and 4.17 inches at Crescent City on the same date were the greatest daily September amounts on record for those places.

(Summary supplied by U. S. Weather Bureau)

CEREAL AND FORAGE INSECTS

GRASSHOPPERS - KANSAS - Damaging wheat field margins in north central counties. Greatest plant loss adjacent to idle ground containing large sunflowers and other weeds. (Gates). *Melanoplus differentialis* dominant species. (Matthew). NEBRASKA - In legume fields infestations concentrated in margins for egg deposition, numbers rapidly declining most areas. Counts average 2-10 per square yard in southeastern counties. *Melanoplus differentialis* and *M. bivittatus* females gravid. Marginal damage to winter wheat in southeast and south central counties. (Roselle). OKLAHOMA - Numbers in rangeland and roadsides remain low in southwestern and southern areas. Populations exceeding 3 adults per square yard uncommon. No migration into field margins in southern areas as in the panhandle. (Coppock, Vick).

EUROPEAN CORN BORER (*Pyrausta nubilalis*) - KANSAS - Fall abundance survey begun. Indications in Kansas River Valley that infestations higher than last year, ranging 16-100 percent with 1-4 larvae per stalk. (Matthew). NEBRASKA - Light infestations causing minor damage in grain sorghum in southeastern areas. Some hybrids appear more susceptible than others. (Roselle). NORTH DAKOTA - Fall survey in 6 southeastern counties shows a 20 percent increase in number of infested plants and a 50 percent increase in number of borers per 100 plants, compared with 1956 survey. (N. D. Ins. Rept.). MISSOURI - Light to heavy stalk breakage of early corn in scattered fields throughout northern two-thirds of State and extreme southeastern area, with 88-100 percent of stalks with 1-7 borers per stalk. Third-brood larvae mature with some pupation and emergence. (Kyd, Thomas). ALABAMA - Found in Walker, Marion and Lamar Counties. New county records. (Grimes). WEST VIRGINIA - Survey of 107 fields in 15 counties averaged 40.2 borers per 100 plants. (W. Va. Ins. Surv.). VIRGINIA - Severely damaged corn in southeastern counties and lodging will be severe if winds are strong before harvesting. (Boush). Damaging corn in Franklin County. (Rowell, Tucker). RHODE ISLAND - Early to middle instar larvae boring stalks and cobs of late forage field corn in Kingston area. (Stoner). LOUISIANA - Taken from two other parishes, Concordia and Tensas, making total of 5 parishes known to be infested. OKLAHOMA - Two larvae recovered from 1,000 corn plants examined at Stillwater. (Arbuthnot).

FALL ARMYWORM (*Laphygma frugiperda*) - KANSAS - Damaging newly emerged wheat in Jewell and Osborne Counties. Control may be required. (Gates). OHIO - Severe in late sweet corn in southern areas, abundant on late corn throughout State, most destructive in southern portions. (C. R. Neiswander). MISSOURI - Heavy damage to late corn continues, with 1-6 larvae per plant in both stalks and ears. Damaging occasional field of early seeded barley or rye; total destruction of one field in Pettis County. (Kyd, Thomas). ALABAMA - Severely damaging late sweet corn in Walker, Winston, Marion and Lamar Counties. Damaging grain sorghum in Walker and Winston Counties. (Grimes). Infesting small grains and grasses in epidemic proportions in Wilcox, Lowndes and Dallas Counties. (Hays). GEORGIA - Heavy on small grain in Taliaferro County and heavy damage in Wilkes and Lincoln Counties. (Carter, McGee, Johnson). Moderate on Coastal Bermuda grass in Hancock County. (Johnson). VIRGINIA - Outbreaks continue to occur in small grains, grasses, milo and other crops in many parts of the State. Rye and grass mixtures for winter pastures are being severely damaged. Infestations are spotted in the various counties infested. (Morris et al.). DELAWARE - Generally common in late field corn. Prevalent in Sudan grass, some places in central Kent County. (Milliron, Conrad). OKLAHOMA - Spotty infestation of sorghum heads throughout State. Approximately 10 percent of heads infested in one field of milo and shank feeding on late corn in Kingfisher County. (Coppock, Vick).

CHINCH BUG (*Blissus leucopterus*) - MISSOURI - Common in most corn and grain sorghum throughout southwestern area, ranging 6-32 nymphs and adults per stalk. (Kyd, Thomas). LOUISIANA - Large numbers on corn in northeast areas. (Oliver).

RICE WEEVIL (*Sitophilus oryza*) - VIRGINIA - Very heavy in southeastern corn fields. (Boush).

CORN EARWORM (Heliothis zea) - OHIO - Very severe infestation in late sweet corn. (C. R. Neiswander). ALABAMA - Damaging grain sorghum in Walker and Winston Counties. (Grimes). VIRGINIA - Present in many peanut and soybean fields in eastern and southeastern areas. Damaging milo where seeds are still in dough state. Infesting 5-6 thousand acres of soybeans in Westmoreland County. (Morris et al.). SOUTH CAROLINA - Numerous on heads of grain sorghum in Orangeburg County. (Nettles et al.). DELAWARE - Continues to feed on soybeans in Sussex County. Common in alfalfa locally in southern areas. Generally prevalent in late field corn. Active in Sudan grass in central localities. (Milliron, Conrad). RHODE ISLAND - Relatively large numbers of adults at West Kingston light trap, September 22. Adults numerous in Quonset light trap, September 24. (Stoner). MARYLAND - Moderate larval damage to soybeans in southern sections. (U. Md., Ent. Dept.). LOUISIANA - Heavy populations remain in grain sorghum in Morehouse and Tensas Parishes. (Oliver).

CORN LEAF APHID (Rhopalosiphum maidis) - NEBRASKA - Light infestations in most grain sorghums. No indication of yield reduction. (Roselle). ALABAMA - A light infestation on grain sorghum in Winston County. (Grimes). LOUISIANA - Populations remain heavy in corn, sorghum and millet over State. (Oliver). OKLAHOMA - Populations on sorghums have disappeared in most areas. This has been heaviest, most prolonged infestation in years. (Coppock).

SOUTHWESTERN CORN BORER (Zeadiatraea grandiosella) - KANSAS - Infestation of 12 percent at one location in Wabaunsee County. This is farthest north for this season. (Matthew). MISSOURI - Light in early corn, heavy in late corn throughout southwestern counties. Stalk infestation in late corn ranges 2-50 percent. (Kyd, Thomas). OKLAHOMA - Heavy tunneling in corn, one field in Blaine County. Overwintering larvae in tap roots. (Coppock, Vick).

SORGHUM WEBWORM (Celama sorghiella) - MISSOURI - Light to heavy in many fields in extreme southeastern areas with counts of 0 to over 100 larvae per head. Damage heavy in few fields. (Kyd, Thomas). ALABAMA - Light damage to grain sorghum in Winston and Walker Counties. (Grimes). LOUISIANA - Populations remain heavy in grain sorghum in Morehouse and Tensas Parishes. (Oliver).

SORGHUM MIDGE (Contarinia sorghicola) - MISSOURI - Sorghum heavily damaged in extreme southeast area. Set of grain reduced 75-95 percent in more heavily infested fields. (Kyd, Thomas).

A GRASSWORM (Mocis sp.) - GEORGIA - Light on Coastal Bermuda grass in Colquitt, Berrien and Bacon Counties, moderate in Hancock County. One 30 acre field destroyed in Meriwether County. (Johnson, Buchanan).

A FALSE CHINCH BUG (Nysius sp.) - OKLAHOMA - Hundreds per plant, few fields of milo in Kiowa County, numerous in heads. Light in one field in Tillman County. (Coppock, Vick).

A CORN SAP BEETLE (Carpophilus sp.) - VIRGINIA - Damaging corn in Franklin County. (Rowell, Tucker).

SUGARCANE BORER (Diatraea saccharalis) - LOUISIANA - Infesting approximately 90 percent of rice plants in 2 fields examined in Avoyelles Parish, destroying about 30 percent of heads. (Oliver).

PEA APHID (Macrosiphum pisi) - NEBRASKA - Slight increases in all areas. Counts non-economic, 16-80 per 10 sweeps. (Schick, Roselle). SOUTH DAKOTA - Continues to build up in alfalfa in east central regions, with 100 per 10 sweeps. (Hantsbarger). DELAWARE - Increased on alfalfa generally. (Milliron, Conrad).

A CUTWORM - VIRGINIA - Very heavy in 1 of 7 peanut fields surveyed in Nansemond County. (Morris, Ward).

SPOTTED ALFALFA APHID (Therioaphis maculata) - KANSAS - Practically non-existent in most fields, remaining at non-economic levels throughout State. (Matthew). NEBRASKA - Populations in legumes increased in southwest areas, averaging 200-300 per 10 sweeps. Weather conditions in eastern localities unfavorable for population increases. No important economic infestations reported. (Schick, Roselle). SOUTH DAKOTA - Present in Brookings County for first time this season, 1 per 10 sweeps. (Hantsbarger). MISSOURI - Generally light over State with 1-15 per sweep in the southwest area and 3-20 per sweep in central portions. (Kyd, Thomas). CALIFORNIA - Light to severe in 18 counties during August. (Cal. Coop. Rept., August). Medium to heavy on scattered plants at Montague, Siskiyou County. This is first record for this county. (Cal. Coop. Rept.). INDIANA - Moved eastward to Ohio border, with new county records for Switzerland, Ohio and Dearborn Counties. Found for first time this season in Sullivan County September 26. Populations greatly diminished generally. (Wilson). ILLINOIS - Survey of southern 4-5 tiers of counties shows populations in alfalfa ranging from 0-30 per 100 sweeps. This is lower than in mid-August. (Ill. Ins. Rept.). UTAH - Light to moderate in most Millard, Beaver, Iron and Washington County alfalfa fields recently examined. Occasional economic damage. (Knowlton et al.). OKLAHOMA - Populations generally decreasing in southwestern and south central areas, over 50 per 10 sweeps uncommon. Highest population was 200 per 10 sweeps in Jackson County. Predators remain abundant; 3-15 lady beetles and 0-30 lacewings per 10 sweeps. (Coppock, Vick).

VELVETBEAN CATERPILLAR (Anticarsia gemmatilis) - GEORGIA - Heavy on alfalfa in Oconee and Hancock Counties and heavy on soybeans in Colquitt, Bulloch and Burke Counties. One field completely defoliated in Burke County. (Johnson). NORTH CAROLINA - General in soybean and peanut fields throughout southeastern areas and eating peanuts in stacks in some areas. (Jones, Rabb). VIRGINIA - Heavy and feeding on foliage of soybeans in many fields and on foliage of peanuts in some instances. Extremely numerous on soybeans on Eastern Shore and quite numerous in Norfolk area. (Morris et al.). MARYLAND - Larvae abundant and heavily damaging 50 acres of soybeans near Aquasco, Prince Georges County. On soybeans at Ridge, controls applied. Adults in Salisbury light trap. (U. Md., Ent. Dept.). DELAWARE - Attacking soybeans at several locations in southern half of State. Light in lima and snap beans in southern Kent and Sussex Counties. New State record. (Milliron, Conrad).

CORN ROOTWORMS (Diabrotica spp.) - SOUTH DAKOTA - Adults prevalent in alfalfa and red clover in eastern region, ranging from 1-7 per 10 sweeps. (Hantsbarger).

A LOOPER (Pseudoplusia includens) - VIRGINIA - Quite numerous on soybeans in Westmoreland County fields. Det. W. G. Evans. (Morris, Dawson).

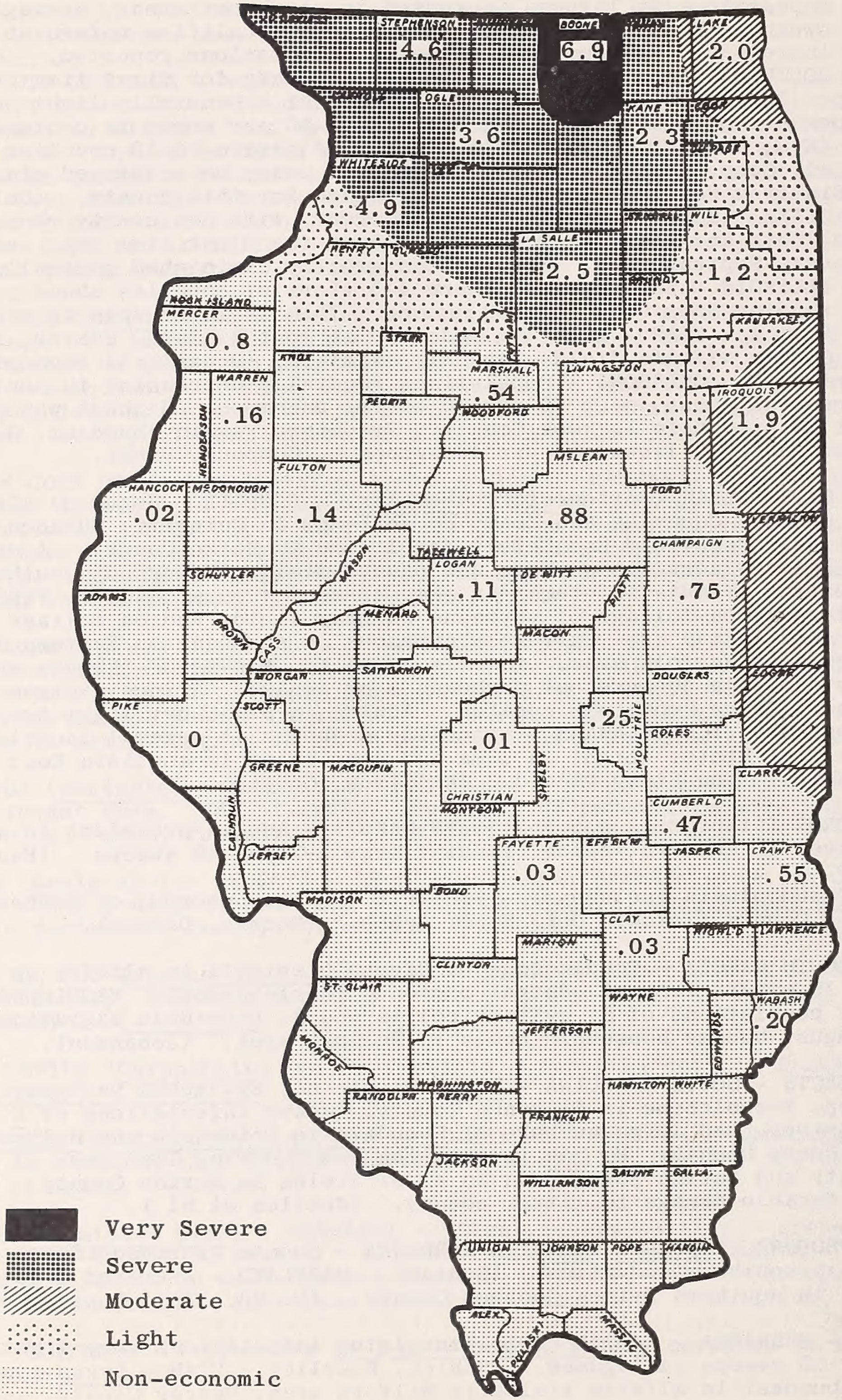
WEEVILS - SOUTH DAKOTA - Populations of Sitona hispidula in alfalfa up to 3 adults per 10 sweeps in east central region. (Hantsbarger). WASHINGTON - Heavy adult populations of S. cylindricollis and S. hispidula migrating during July and August became household pests in Pullman area. (Johansen).

SOYBEAN INSECTS - SOUTH CAROLINA - Trichoplusia ni, Epilachna varivestis and Epicauta spp. troublesome in Florence County. Heavy infestations of E. varivestis and Epicauta spp. and large numbers of Pseudaletia unipuncta and Heliothis zea present in Horry County. H. zea infestation heavy during last week of August in Lee County and eating young pods in older fields in Marion County. T. ni doing considerable damage in latter county. (Nettles et al.).

POTATO LEAFHOPPER (Empoasca fabae) - NEBRASKA - Counts averaged 18 per 10 sweeps in alfalfa in southwest counties. (Schick). MARYLAND - Averaged 5-10 per sweep on soybeans in southern Prince Georges County. (U. Md., Ent. Dept.).

PLANT BUGS - NEBRASKA - Adelphocoris lineolatus infestations very light. Counts of 0-12 per 10 sweeps in legumes. (Schick, Roselle). UTAH - Lygus spp. still extremely abundant in alfalfa fields in Milford area, Beaver County, and often abundant in fields of Millard, Beaver, Iron and Juab Counties. (Knowlton et al.).

Adult Spittlebug Survey, Illinois
August 26 to September 13



Numbers = County average; adults per sweep.

MEADOW SPITTLEBUG (Philaenus leucophthalmus) - DELAWARE - Adults common in alfalfa fields, central Kent County. (Milliron, Conrad).

LESSER CLOVER LEAF WEEVIL (Hypera nigrirostris) - SOUTH DAKOTA - Adults in red clover in northeast area with 2 per 10 sweeps. (Hantsbarger).

LEAF MINERS - UTAH - Reduced seed yield in a number of alfalfa fields in Millard County. (Knowlton et al.).

GREEN JUNE BEETLE (Cotinis nitida) - VIRGINIA - Severely damaging young alfalfa, pasture and lawn in Scott County. (Delp).

GREEN CLOVERWORM (Plathypena scabra) - SOUTH DAKOTA - Numerous in some alfalfa fields in east central region with up to 14 larvae per 10 sweeps. (Hantsbarger). DELAWARE - Unusual numbers persist in soybean and alfalfa fields generally, especially Sussex County. (Milliron, Conrad).

GARDEN WEBWORM (Loxostege similalis) - DELAWARE - Infesting alfalfa in Kent and Sussex Counties, moderately heavy at one location in Kent County. (Milliron, Conrad).

FRUIT INSECTS

CODLING MOTH (Carpocapsa pomonella) - RHODE ISLAND - Late-instar larvae infesting almost 100 percent of abandoned apples in orchard at Usquepaug and all quince fruits infested in orchard at Bristol. (Stoner, Caroselli). UTAH - Infestation generally heavy in Iron and Juab County apple orchards. (Knowlton).

APPLE MAGGOT (Rhagoletis pomonella) - RHODE ISLAND - Larvae severe in unsprayed orchards, 8-10 per fruit. A commercial orchard at Westerly with 75 percent of fruits "wormy". (Stoner).

CRANBERRY PESTS - OREGON - Appreciable damage by Crambus topiarius in several bogs in Bandon area. Serious damage by Brachyrhinus sulcatus appeared in one bog. A tortricid (Acleris lipsiana), first reported from State in 1956, has increased in numbers in one 9-acre bog. Several adults were collected at widely scattered locations on September 24 in this acreage. (Capizzi, Goeden).

LEAF CRUMPLER (Acrobasis indigenella) - CALIFORNIA - Heavy on plum in Chula Vista, San Diego County. (Cal. Coop. Rept.).

PEACH SILVER MITE (Vasates cornutus) - OREGON - Light to moderate infestations in peach orchard in New Bridge area of Baker County. (Every, Sept. 20).

PEAR PSYLLA (Psylla pyricola) - WASHINGTON - Late season activity very light, below anticipated level in Yakima area. (Dean).

A SPIDER MITE (Tetranychus mcdanieli) - CALIFORNIA - Caused considerable damage to apple foliage in Oak Glen area, San Bernardino County during August. New record for county. (Cal. Coop. Rept.).

A VINEGAR FLY (Drosophila melanogaster) - RHODE ISLAND - Large numbers of adults and larvae injuring grapes at Kingston. (Stoner).

WOOLLY APPLE APHID (Eriosoma lanigerum) - IDAHO - Field migrations of winged forms observed during past week in Moscow area. (Gittins).

TWIG GIRDLER (Oncideres cingulata) - SOUTH CAROLINA - Causing considerable amount of pecan twigs to fall in Spartanburg County. In several instances an entire tree girdled. (Smith).

AN ERIOPHYID MITE (Aceria litchii) - FLORIDA - Infesting 6 lychee trees at Nokomis. Eradication will be attempted since pest found only in this one planting. (H. Denmark).

CITRUS RED MITE (Panonychus citri) - CALIFORNIA - Heavy in southern area, particularly in parts of Ventura and Orange Counties. (Cal. Coop. Rept.).

CITRUS FLAT MITE (Brevipalpus lewisi) - CALIFORNIA - Common and abundant some groves in Redlands-Riverside area. First record in area. Previously limited to warmer parts of central valley and desert regions of State. (Cal. Coop. Rept.).

CALIFORNIA RED SCALE (Aonidiella aurantii) - CALIFORNIA - Some buildup with possibly more to come, due to hot summer, in southern area. (Cal. Coop. Rept.).

TRUCK CROP INSECTS

APHIDS - ALABAMA - Heavy infestation on fall tomatoes. (Morris). MARYLAND - Macrosiphum solanifolii heavy on tomatoes at Fairland. (U. Md., Ent. Dept.). RHODE ISLAND - Extremely large populations of Aphis gossypii on young tips of cucumber and squash vines at Kingston and West Kingston. (Stoner). DELAWARE - Brevicoryne brassicae decreased on cruciferous crops generally. Aphis gossypii increasing on pumpkin-squash one location, central Kent County. (Milliron, Conrad). UTAH - Potato aphids extremely numerous on certified and commercial potatoes in Beryl-Enterprise area of southern Utah during late season. Many fields treated once or twice. (Knowlton).

CABBAGE LOOPER (Trichoplusia ni) - MARYLAND - Heavy on broccoli at Fairland. (U. Md., Ent. Dept.). DELAWARE - Decreased on cruciferous crops generally. Continues active on lima beans in northeastern Sussex and central Kent Counties. (Milliron, Conrad). CALIFORNIA - Trace infestation on tomato plantings locally in Yolo County. Unusual host record for State. (Cal. Coop. Rept.). NEVADA - Still infesting onions in Lyon County. (Lauderdale Sept. 13).

LOOPERS - OKLAHOMA - Defoliating sweetpotatoes in McCurtain County. (Goin).

EUROPEAN CORN BORER (Pyrausta nubilalis) - VIRGINIA - Infesting potatoes on Eastern Shore. Several inquiries on control received. (Brubaker, Greenwood, Hofmaster). DELAWARE - Damage to peppers increased one area, central Kent County. Elsewhere, fruit injury decreased, with greater tendency to stalk and stem entry. (Milliron, Conrad).

FLEA BEETLES - UTAH - Severely damaging potato foliage at American Fork. (Knowlton).

POTATO TUBERWORM (Gnorimoschema operculella) - UTAH - Infesting some potato fields in Beryl-Enterprise area of Iron and Washington Counties. (Knowlton).

POTATO PSYLLID (Paratrioza cockerelli) - UTAH - Adults common, sometimes abundant, on rubber rabbitbush blossoms wherever examined in Millard, Beaver, Iron and Washington Counties. (Knowlton).

THREE-LINED POTATO BEETLE (Lema trilineata) - RHODE ISLAND - Enormous numbers of adults congregating on wild husk tomato, averaging 15 per sweep. Concentration probably due to early death of potatoes in Kingston area. (Stoner).

GREEN CLOVERWORM (Plathypena scabra) - DELAWARE - Continued infestations on beans some places in Kent and Sussex Counties. (Milliron, Conrad).

SOUTHERN ARMYWORM (Prodenia eridania) - MISSISSIPPI - Much damage to sweetpotatoes left on ground over night in Panola County. (Smith).

CORN EARWORM (*Heliothis zea*) - VIRGINIA - Causing considerable injury to bean foliage and to developing flower pods in eastern Virginia, and usual damage to tomatoes where not controlled. (Brubaker, Greenwood, Hofmaster). DELAWARE - Larvae common on beans many locations in southern area. Few feeding in pumpkin-squash flowers generally and fruits some places in Sussex County. Small numbers in late cabbage, northern New Castle County. (Milliron, Conrad). OKLAHOMA - Damaging sweetpotatoes vines lightly in McCurtain County. (Goin).

MEXICAN BEAN BEETLE (*Epilachna varivestis*) - VIRGINIA - Light to moderate on snap and lima beans in eastern area. (Brubaker, Greenwood, Hofmaster). FLORIDA - Infesting 50 acres of beans at Hague, Alachua County. (Hague). RHODE ISLAND - Small numbers of adults present on beans. About 50 percent defoliation of rather large untreated commercial planting at West Kingston. (Stoner).

BEET LEAFHOPPER (*Circulifer tenellus*) - UTAH - Numerous in young sugar beet seed plantings in St. George-Washington area. (Knowlton).

PICKLEWORM (*Diaphania nitidalis*) - VIRGINIA - Light to heavy injury to late cucumbers, pumpkins and squash in eastern area. (Brubaker, Greenwood, Hofmaster).

CUCUMBER BEETLES - RHODE ISLAND - Adults of *Acalymma vittata* and *Diabrotica undecimpunctata howardi* feeding on blossoms of summer squash at West Kingston. (Stoner).

GARDEN FLEAHOPPER (*Halticus bracteatus*) - DELAWARE - Common on pumpkin-squash, one place in New Castle County. (Milliron, Conrad).

TWO-SPOTTED SPIDER MITE (*Tetranychus telarius*) - PENNSYLVANIA - Generally heavy on strawberries in Clearfield County. (Adams). WASHINGTON - Heavy late season flare up on raspberries in Puyallup area. (Breakey).

COTTON INSECTS

COTTON LEAFWORM (*Alabama argillacea*) - GEORGIA - Many fields of cotton defoliated in south and middle Georgia. Defoliation beneficial at this time (September 25). (Johnson). NORTH CAROLINA - General throughout southern area. (Jones, Farrier, Dogger). SOUTH CAROLINA - Completed defoliation of cotton during past 10 days in Williamsburg County; saved hundreds of bales of cotton for many growers. (Nettles, Sept. 25).

FOREST, ORNAMENTAL AND SHADE TREE INSECTS

AN ARCTIID (*Halisidota argentata*) - OREGON - Masses of first and second-instar larvae noted on isolated Douglas-fir trees near Bandon. (Goeden, Capizzi).

PINE TIP MOTHS - ALABAMA - Damaging small pines in northern area. (Morris, Thompson).

TIGER SWALLOWTAIL (*Papilio glaucus*) - NEBRASKA - Larval defoliation of many ornamental and fruit trees occurring in central area. (Roselle).

SNOWY TREE CRICKET (*Oecanthus niveus*) - UTAH - Riddling foliage of young boxelder trees at Glendale. (Knowlton).

HAWTHORN LACE BUG (*Corythucha cydoniae*) - NORTH CAROLINA - Very severe infestation, 1-3 adults per leaf, on pyracantha locally in Rockingham County and infesting pyracantha locally in Lincoln County. (Scott, Rabb).

FLORIDA RED SCALE (*Chrysomphalus aonidum*) - FLORIDA - Populations of all stages high on ornamentals over State. (H. Denmark).

AN APHID (*Pentalonia nigronervosa*) - OKLAHOMA - Found on *Caladium* sp. in greenhouse in Tulsa week of August 12. Det. L. M. Russell. (Stiles).

A FLANNEL MOTH (*Norape cretata*) - NORTH CAROLINA - Larvae numerous on locust and beech-nut trees in Vance County and on mimosa in Wilkes County. (Scott, Rabb).

GREEN-STRIPED MAPLEWORM (*Anisota rubicunda*) - KANSAS - Second-generation larvae feeding on soft maple trees most northeastern counties. Many trees infested nearly defoliated. (Matthew).

ELM LEAF BEETLE (*Galerucella xanthomelaena*) - IDAHO - Pupation general in Twin Falls area. Full-grown larvae and pupae present in considerable numbers around bases of elm trees. (Gibson).

SMALLER EUROPEAN ELM BARK BEETLE (*Scolytus multistriatus*) - NEBRASKA - First recorded from Nuckolls County. (Roselle).

AN OAK SCALE (*Asterolecanium* sp.) - PENNSYLVANIA - Extensive branch destruction on oak in Allegheny County. Damage accentuated by dry weather. (Udine).

PAINTED MAPLE APHID (*Drepanaphis acerifoliae*) - DELAWARE - Prevalent on Norway maple, central Kent County. (Milliron, Conrad).

MIMOSA WEBWORM (*Homadaula albizziae*) - PENNSYLVANIA - Still feeding on mimosa in Perry County. (Pepper).

INSECTS AFFECTING MAN AND ANIMALS

MOSQUITOES - NORTH CAROLINA - *Mansonia perturbans* numerous on Orton Plantation in Brunswick County. *Aedes sollicitans* quite abundant and *Psorophora confinnis* more numerous in Carteret and Pamlico Counties. (Ashton). CALIFORNIA - *Anopheles freeborni* still numerous in parts of northern Sacramento Valley. *Aedes nigromaculis* trapped most of San Joaquin Valley, but generally in small numbers. *Psorophora confinnis* decreased somewhat in south central Riverside County, but still numerous. *Culex tarsalis* females taken in light traps in diminishing numbers. (Cal. Coop. Rept.).

SCREW-WORM (*Callitroga hominivorax*) - NORTH CAROLINA - Severe general infestation in navels and vaginal areas of cattle and hogs at time of birth in Beaufort County. (Williams). SOUTH CAROLINA - Infestations worst in many years in Charleston County. Appeared in horses, cattle, hogs and a serious problem in deer in Georgetown County. One reporter counted 25 deer dead with screw-worm and several others affected in small area in one day. Causing considerable damage in Marlboro County. Appears to be spreading throughout York County with severe damage to large number of livestock. (Nettles).

STABLE FLIES - OKLAHOMA - Populations average 50-100 per animal in Payne County. (Howell).

GNATS - NORTH CAROLINA - Severe problem causing loss of efficiency of field hands in Coastal Plains area. (Ashton).

SHEEP SCAB MITE (*Psoroptes equi ovis*) - VIRGINIA - Light on 30 head of sheep in Clarke County. (Gerkin).

TICKS - OKLAHOMA - Extremely serious in Atoka County. (Vick).

STORED PRODUCTS INSECTS

CADELLE (*Tenebroides mauritanicus*) - NEBRASKA - Infestations in wheat more general this fall than past two years. (Roselle).

BENEFICIAL INSECTS

PREDATORS - RHODE ISLAND - *Chrysopa oculata* and *Hippodamia convergens* adults feeding on *Aphis gossypii* at Kingston and West Kingston. (Stoner). SOUTH DAKOTA - *Nabis* spp. abundant in alfalfa fields in eastern area; populations up to 4 per 10 sweeps. *Orius insidiosus* common in alfalfa fields in eastern area with populations up to 7 per 10 sweeps. (Hantsbarger). UTAH - Lady beetles, *Nabis* spp. and *Chrysopa* spp. extremely abundant in some Milford area alfalfa fields. Severe infestations of pea aphid and spotted alfalfa aphid controlled by these predators. (Knowlton). IDAHO - Lady beetles congregating in and around hibernation quarters in Moscow area. Aphid populations on trees and shrubs in Twin Falls greatly reduced by predation and parasitism. (Gibson).

A GORSE WEEVIL (*Apion ulicis*) - OREGON - Successfully completed a second year of development in State, but has not dispersed further than 100 yards in any direction from either of two locations in Bandon area that were original release sites. (Capizzi).

MISCELLANEOUS INSECTS

IMPORTED FIRE ANT (*Solenopsis saevissima richteri*) - FLORIDA - Incipient infestation at Lutz, Hillsborough County, being treated in attempt to eradicate. Lutz most southern point of infestation in State. (H. Denmark). ALABAMA - Reported from Blount County. First record in county. (Hays).

ANTS - IDAHO - Swarms annoying to householders in Twin Falls area. (Gibson).

EARWIGS - UTAH - Numerous complaints from homeowners in several counties. (Knowlton).

HOUSE CRICKET (*Acheta domestica*) - CALIFORNIA - First record from Imperial County. One specimen taken in gin trash machine operating on cotton insect survey. (Cal. Coop. Rept.).

A WEEVIL (*Trachyphloeus bifoveolatus*) - OREGON - Entering homes in Coos County. Apparently first record in county. (Every).

CORRECTIONS

CEIR 7(34): 684 - APPLE LEAF SKELETONIZER (*Psorosina hammondi*) reported for WASHINGTON should be APPLE AND THORN SKELETONIZER (*Anthophila pariana*).

CEIR 7(30): 611 - On map of VINE MOTH (*Lobesia botrana*) distribution add Libya.

ADDITIONAL NOTES

NEVADA - Populations of SPOTTED ALFALFA APHID, September 13, low in Jiggs area, Elko County (Lauderdale) and in Dayton area, Lyon County, increasing with 20-40 per stem (Bechtel).

MINNESOTA - GRASSHOPPERS show slow development and egg laying. (Minn. Ins. Rept.).

LIGHT TRAP COLLECTIONS

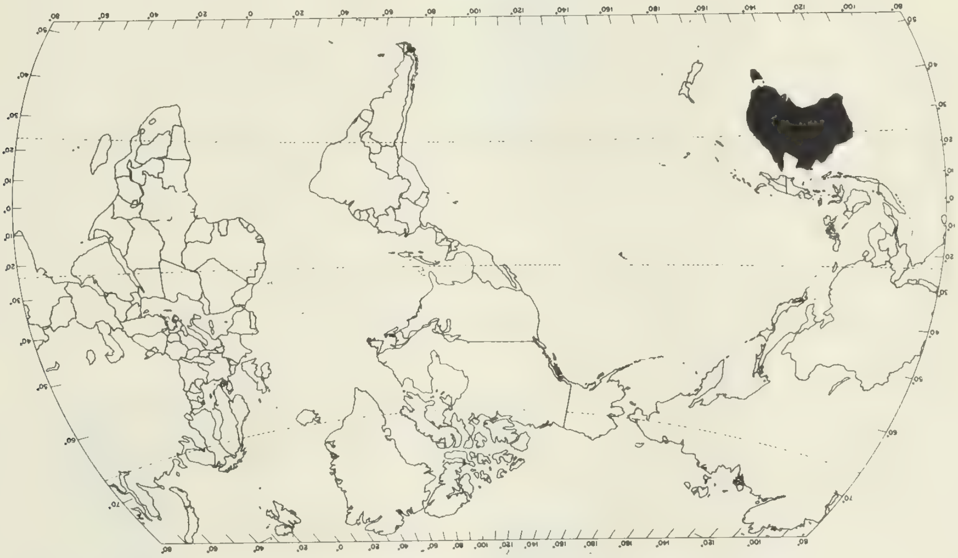
	Pseud.	Agrot.	Prod.	Anticar.	Laphyg.	Heliothis		Protoparce	
	unip.	yps.	orn.	gemm.	frug.	zea	vires.	sexta	quin.
ALABAMA (County)									
Lee 9/21, 24, 26	165	33	22		199	24	53	3	1
ARKANSAS									
Stuttgart 9/19-25	5					6			
Fayetteville 9/14-27	18	7				116			
FLORIDA									
Gainesville 9/25				38		10	2		
GEORGIA (County)									
Tift 9/16, 18, 20	35		40		270	59	32		
ILLINOIS									
Urbana 9/19-25	136	6	256		22	800			
INDIANA (County)									
Orange 9/18-22	70	7	74			26		10	2
KANSAS									
Manhattan 9/19-26	8	3	3			252			
Hays 9/17-25	2	8	5			279			
Garden City 9/24-26	8	8				342			
LOUISIANA									
Baton Rouge	32	36	106	480	144	180			
MARYLAND (County)									
Wicomico 9/17-23	10	74		22	17	64		6	25
NEBRASKA (Counties)									
Lincoln 9/12-18	31	24			9	66			1
Box Butte 9/10-13	2					4			
Perkins 9/11-15	34	7			3	9			1
Scotts Bluff 9/9-15	2					3			
NORTH CAROLINA (Counties)									
Johnston 9/26	31	7	14	46	3	1			
Duplin 9/26	29		5	35		4			
SOUTH CAROLINA (Counties)									
Charleston 9/16-22	12	2	28	509	67	26	7	3	
Florence 9/21-27	982	23	196	2,076	354	200	20	2	1
Oconee 9/21-27	338	7	256		128	33	1		
SOUTH DAKOTA									
Brookings 9/27	2	5							
TENNESSEE (Counties)									
Madison 9/17-23	56	24	16		16	520		14	11
Maury	92	4	8		8	132		5	40
Robertson	48	40	24		16	440			28
Cumberland		8	8		8	32		2	12
Knox	32	8	36		16	400		2	7
Greene	60	18	30		18	318	12	6	33
Blount	16	8	24		20	28		4	36
Johnson	324	140				294	1		4

INSECTS NOT KNOWN TO OCCUR IN THE UNITED STATES

RUTHERGLEN BUG (*Nysius vinitor* Bergroth)

Economic Importance: This lygaeid is considered one of the worst native pests of southern Australia. In outbreaks it may be as injurious as the North American chinch bug and its host preference is much greater. N. *vinitor* feeds on many succulent plants causing damage to such crops as tomatoes, onions, wheat, cotton and fruits. Observations show that one heavily-infested apricot orchard yielded only 100 boxes of fruit compared with 3,000 boxes the following year when the insect was properly controlled. Damaging infestations usually occur in hot dry weather following rains although the pest appears in vast numbers only about once in 10 years.

Distribution: Australia including Tasmania.



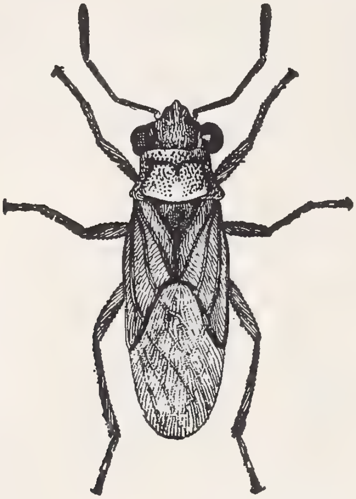
General Distribution of *Nysius vinitor*

Hosts: Wide host range including wheat, cotton, vegetables and fruits. On vegetables it is most important on beans, tomatoes, beets and potatoes. Although fruits, including citrus, are generally attacked, stone fruits are most susceptible.

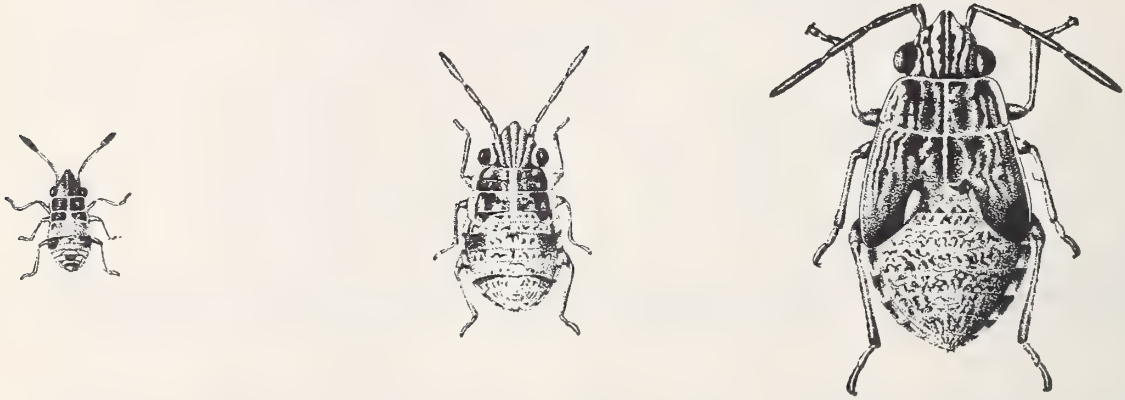
Life History and Habits: Overwintering adults commence breeding in early spring and lay eggs in the soil, in the glumes of grasses and in flower heads of weeds, particularly composites. The adults are active when disturbed in warmer periods and resemble flies in their movements. The eggs, placed in compact groups of 2 to 7, hatch in about 6 days. More than 400 eggs can be laid by a single female. Nymphs mature in about three weeks passing through five molts. The young insects do not migrate far from the food plants, but the adults will fly considerable distances. The life cycle requires about four weeks.

Lygaeidae, Hemiptera

Description: Adult is about 5 mm. long, narrow-bodied and generally grayish-brown, with darker brown markings. Eyes are black and prominent and two small ocelli are visible on the top of the head. Antennae are four-segmented. Eggs are about 1 mm. long, creamy-white at first but becoming reddish-brown before hatching. The nymphs are generally reddish-brown. (Prepared in Plant Pest Survey Section in cooperation with other ARS agencies.) CEIR 7(40) 10-4-57



Adult



Nymphal Stages (first, third and fifth instars)

Figures of instars from Veitch, R. and Simmonds, J. H. 1929. Pests and Diseases of Queensland Fruits and Vegetables. 198 pp. Brisbane.

Figure of adult from New South Wales Dept. Agr., Ent. Br., Div. Sci. Serv. Insect Pest Leaf. No. 6, Rev. 1952, 2 pp.

STATEMENT ON THE EFFECT OF THE SOIL BANK PROGRAM ON INSECT PROBLEMS*

The Soil Bank Program will effect rapid changes in agricultural practices in many areas in the United States. New cropping practices and other changes in plant and animal ecology in specific areas will in turn influence insect populations. That the soil bank could result in significant increases or decreases in insect populations in many areas was officially brought to the attention of the Department of Agriculture by one of the western state experiment stations at the suggestion of some of the entomologists in that area. This subject was also discussed informally in the Department for some time. Accordingly, entomologists have given consideration to the matter and are calling to the attention of those interested certain changes that are likely to occur based on observations in the past where new farming practices similar to the Soil Bank Program have been put into effect.

Purpose of the Statement

The purpose of this statement is to: (1) provide general information on the nature and scope of the Soil Bank Program as it may relate to potential insect conditions; (2) cite examples of insect population changes that could take place and (3) stress the importance of general surveillance on the part of research, extension, and survey entomologists in State, Federal, and other services in order to recognize and appraise the significance of any changes in insect conditions that may be related to the program.

Nature and Scope of the Soil Bank Program

The Soil Bank Program was instituted to reduce production of basic crops and to conserve resources of the future. The Soil Bank provides for two categories. One, the acreage reserve, offers producers of "basic" crops an opportunity to keep allotted acreages out of production and receive compensation for so doing. The acreage reserve agreements are for one year only, but the same tract may be designated for a second year under a new agreement. The "basic" crops involved in the 1957 acreage reserve are wheat, upland cotton, corn, tobacco and rice. Acreage taken out of production may be either rested or planted to an approved cover crop. The second category is known as the conservation reserve which is for a longer period of time. The minimum period is 3 years and may be 5 or 10 years and under certain conditions a longer period of time. The overall objective is to retire general cropland from production that is not needed at the present time, and to help conserve soil, water, forest, and wildlife resources. As with acreage reserve, this land will remain idle. In addition, one or more accepted soil conservation practices will be applied. The conservation practices include dams to store water, planting of grass or legumes for vegetative cover, tree or shrub planting, and practices of benefit to wildlife

The attached map shows the approximate acreage in the Soil Bank program by States as of May 1, 1957. Figures are given for both the acreage reserve and conservation reserve.

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* Prepared under the joint auspices of the Agricultural Research Service and the Federal Extension Service, United States Department of Agriculture.

Examples of Probable Effects on Insect Conditions

There is a general belief that insect populations will be affected by the Soil Bank Program. These changes will be more often local or regional than national. The effects may be harmful or beneficial, depending on whether the increase in insect populations is a destructive or beneficial species. The kind of insect involved will depend somewhat on the region and the use made of reserved acreages. Under some circumstances, the buildup in populations may be rapid. In others, it may be gradual and over a long period of time.

Specific examples of population changes that may arise are cited, based on appraisals by entomologists in the State and Federal Governments.

Destructive Insects

Grasshoppers, especially (Melanoplus mexicanus*, M. bivittatus and M. differentialis) would find in the reserved acreages an increased amount of more favorable places for egg laying and a greater variety of desirable food plants. The acres in the Soil Bank are likely to provide more generally desirable habitats for a variety of species than would the individual crops that are replaced.

A blister beetle problem is a natural accompaniment of the grasshopper problem. Although the adult blister beetles are pests, the larval forms feed on grasshopper eggs, and as such are beneficial.

Cutworms, wireworms, white grubs, Japanese beetle, European chafer, sod webworms, and corn flea beetles, are likely to build up in sod or fallow land, and damage subsequent crops grown thereon.

Armyworms and certain flea beetles may develop in meadows and invade cultivated crops when the meadows or pastures are mowed or dried up.

Thrips, aphids, spider mites, and Lygus bugs are likely to increase on grasses and soil building legumes substituted for basic crops and then migrate to and damage other crops. For example, the pea aphid develops on alfalfa and may migrate to and severely damage peas through transmission of diseases.

Leafhoppers reproduce on alfalfa and a variety of other cultivated or non-cultivated host plants and then migrate to other crops or into new areas. The potato leafhopper may migrate to crops in areas where they develop or migrate hundreds of miles into new areas. The beet leafhopper in the Western and Great Plains area may develop on favorable host plants on retired areas and later invade cultivated areas, to transmit curly top disease to a variety of vegetable crops as well as sugar beets.

Stink bug populations are known to increase on legume crops and on certain plants growing in idle lands. These often migrate to crops and damage them.

Nantucket tip moths, the pales weevil, and other forest insect pests will increase on the additional trees planted under the program.

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* Now M. bilituratus (in part). See CEIR 7(35): 702.

Beneficial Insects

The undisturbed idle land will provide more favorable nesting sites for wild pollinating bees. Replacing large acreages of single crops with diversified crops or multiple wild plants, will permit mixed populations of insects. Parasites and predators that breed on them may migrate to crop lands and aid in control of insect pests. Diversified crops and additional wild plants would help the beekeeping industry in the production of more honey and in strengthening colonies for pollination of plants. In some instances, however, competing wild host plants and seeded crops on reserved acreages might draw bees from colonies intended to pollinate the cultivated crops.

Soil Bank acreages might serve as trap crop areas that could be sprayed for control of migratory insects such as the alfalfa leafhopper when they have moved in following the cutting of cultivated crops.

Importance of Nationwide Observations on Insect Conditions as Related to the Soil Bank Program and Need for Recording the Observations

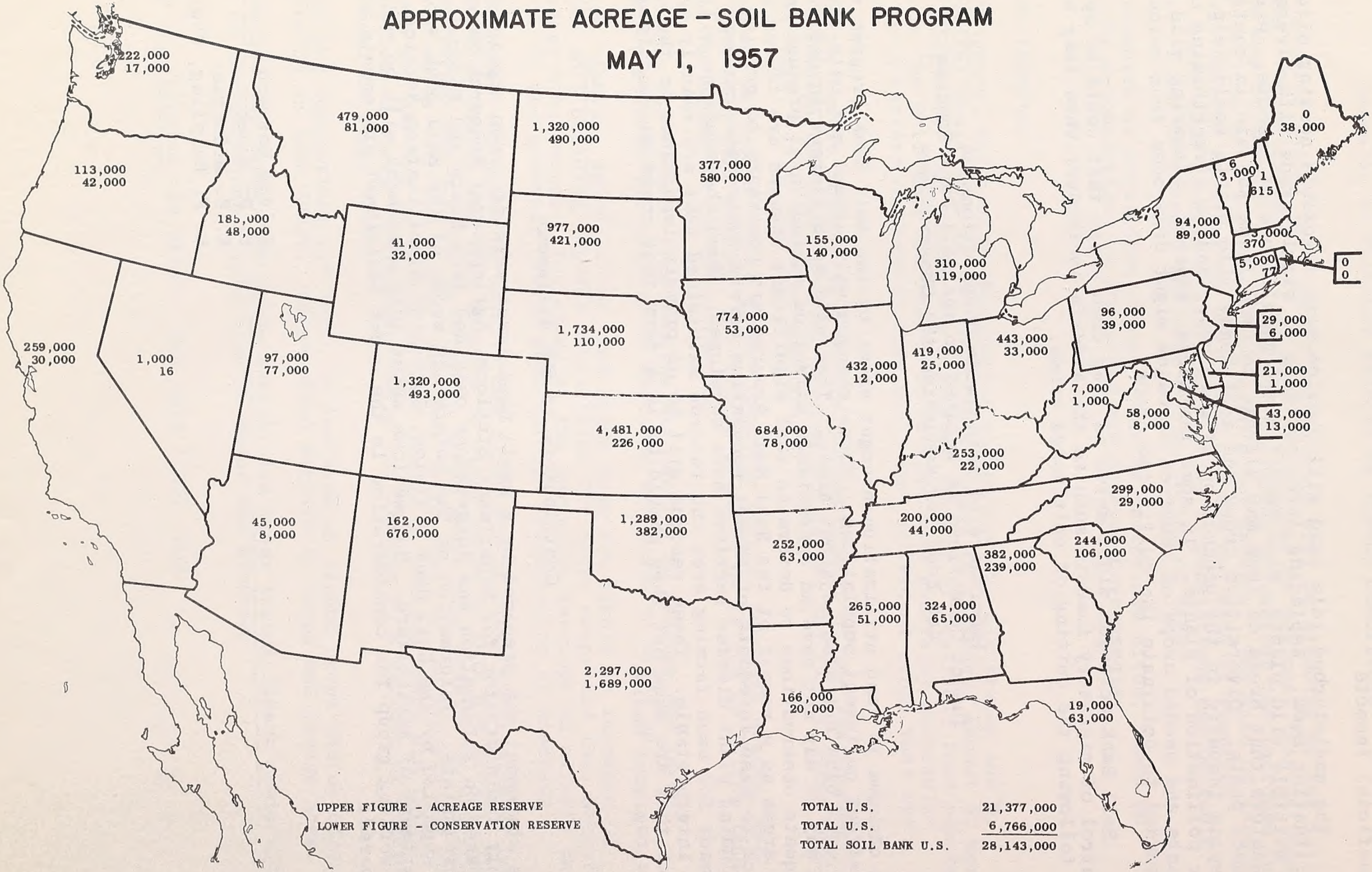
The changes in land utilization brought about by the Soil Bank Program will have an effect on insect populations. These changes will affect not only the land in the soil bank but also adjacent areas. They will be different in different places and may or may not have an appreciable effect on agricultural production. Adequate observations to determine what significant changes are taking place in all areas as a result of the Soil Bank Program are necessary to provide facts on which to base forecasts of insect population before destructive numbers of pests including plant disease carriers have developed. Such observations will need to be made for each farming area and records maintained that are readily available and interpretable. These records will be of primary importance in the area in which they are made but they should be in a form that could be readily summarized on a regional basis.

Contributors to the Statement

This statement was prepared by a small Department working group appointed by the Deputy Administrator for Experiment Stations, Agricultural Research Service. It is based on information and suggestions obtained from State and Federal entomologists. Information on the nature and scope of the Soil Bank Programs was supplied by the Soil Bank Division, Commodity Stabilization Service, U. S. Department of Agriculture. Suggestions about this statement will be welcome by the working group for consideration in the event additional statements are prepared.

Kelvin Dorward
M. P. Jones
E. R. McGovran
E. F. Knipling, Chairman

APPROXIMATE ACREAGE - SOIL BANK PROGRAM
MAY 1, 1957



TOTAL U.S. 21,377,000
TOTAL U.S. 6,766,000
TOTAL SOIL BANK U.S. 28,143,000